

STATUS OF AND AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated below.

1. (currently amended): Apparatus for transferring settled and suspended solids from an open vessel into a closed vessel, where the closed vessel is not open to the atmosphere, the apparatus comprising a suction line which extends from the closed vessel to the open vessel via drive means and a solids feed line which extends from a solids outlet in the open vessel to a solids inlet in the closed vessel, a fluidising apparatus being provided to fluidise the solids in the open vessel, where the fluidising apparatus comprises a flow chamber having a fluid inlet and a fluid outlet, the flow chamber being configured to establish a swirling or coanda flow in a fluid passing out of the fluid outlet, and where the apparatus further comprises a transport outlet for transporting fluidised material away from the flow chamber the closed vessel comprises a feed vessel which feeds suspended solids into a transport vessel containing a fluidising unit, where the transport vessel comprises a solids outlet through which suspended solids are discharged at a controlled rate along a slurry discharge line, and a bypass line is provided to allow fluid from the closed vessel to bypass the fluidising unit and to pass directly into the slurry discharge line to control slurry concentration.
2. (canceled)
3. (currently amended): Apparatus as claimed in claim [[2]] 33, in which the transport outlet is situated externally of the flow chamber.
4. (currently amended): Apparatus as claimed in claim [[2]] 33, in which the transport outlet is situated directly above the flow chamber.
5. (currently amended): Apparatus as claimed in claim [[2]] 33, in which the transport outlet is situated close to the flow chamber.

6. (previously presented): Apparatus as claimed in claim 1, further comprising a flow meter for controlling the rate at which solids are transferred from the open vessel into the closed vessel.

7. (previously presented): Apparatus as claimed in claim 6, in which the flow meter measures the rate of flow of suspended solids.

8-9. (canceled).

10. (currently amended): Apparatus as claimed in claim [[9]] 1, in which means are provided on the slurry discharge line for measuring the flow rate of slurry discharge.

11. (canceled)

12. (currently amended): Apparatus as claimed in claim 11, in which a valve is provided in the bypass line.

13. (canceled)

14. (previously presented): Apparatus as claimed in claim 1, in which valves are provided for controlling the flow rate and/or concentration of suspended solids from the open vessel into the closed vessel based on the flow rate and/or concentration of suspended solids from the transport vessel, so that the solids content of the transport vessel is maintained at a substantially constant level.

15. (original): Apparatus as claimed in claim 14, in which the flow rate of suspended solids from the open vessel to the closed vessel and the rate of discharge of suspended solids from the transport vessel are controlled by means of valves.

16. (original): Apparatus as claimed in claim 15, in which the valves are controlled by a computer, dependent on input from flow meters.

17. (original): Apparatus as claimed in claim 16, in which the flow meters are mass flow meters.

18. (original): Apparatus as claimed in claim 17, in which the flow meters are coriolis or ultrasonic meters.

19. (currently amended): A method for transferring settled and suspended solids from an open vessel into a closed vessel, where the closed vessel is not open to the atmosphere, the method comprising:

- (a) drawing fluid from the closed vessel into the open vessel;
- (b) operating a fluidising unit with the said fluid to fluidise the settled and suspended solids; and
- (c) drawing the fluid and fluidised solids from the open vessel into the closed vessel,
- (d) where the closed vessel comprises a feed vessel and the method further comprises feeding suspended solids into a transport vessel containing a fluidising unit,
- (e) where the transport vessel further comprises a solids outlet, and the method further comprises discharging suspended solids at a controlled rate along a slurry discharge line, and
- (f) where a bypass line is provided to allow fluid from the closed vessel to bypass the fluidising unit, and the method further comprises passing fluid directly into the slurry discharge line thereby controlling slurry concentration.

where the fluidising unit comprises a flow chamber having a fluid inlet and a fluid outlet, the flow chamber being configured to establish a swirling or coanda flow in a fluid passing out of the fluid outlet.

20. (original): A method as claimed in claim 19, in which the fluid is drawn from the closed vessel to the open vessel by means of a pump or compressor.

21. (previously presented): A method as claimed in claim 19 in which the fluid is recirculated between the closed vessel and the open vessel, so that no additional fluid is added to or removed from the system.

22. (previously presented): A method as claimed in claim 19 further comprising the step of:

- (d) controlling the rate of discharge of the fluid and fluidised solids from the closed vessel into a discharge vessel, so that a desired concentration of solids is discharged from the discharge vessel.

23. (original): A method as claimed in claim 22 in which the concentration of solids discharged from the discharge vessel is maintained at a constant rate.

24. (previously presented): A method as claimed in claim 19, in which controlling the rate of discharge of solids from the closed vessel to the discharge vessel is achieved by controlling a valve on a pipe connecting the closed vessel to the discharge vessel.

25. (previously presented): A method as claimed in claim 22, further comprising the step of fluidising the solids in the discharge vessel.

26. (previously presented): A method as claimed in claim 19, in which no fluid other than the fluid in the open vessel is used to fluidise and transport the settled and suspended solids from the open vessel to the closed vessel.

27. (previously presented): A method as claimed in claim 19, in which the only fluid used to transport solids from the closed vessel to a discharge vessel is the said fluid.
28. (previously presented): A method as claimed in claim 19, which is adapted to operate below sea level to remove contaminated material from the seabed and to hydro hoist this material to a receiving ship or barge for treatment or transportation to the shore.
29. (previously presented): A method as claimed in claim 19 adapted to remove material from the seabed for the purposes of dredging or the mining/retrieval of valuable elements.
30. (previously presented): A method as claimed in claim 19 adapted for the removal of radioactive waste solids from storage ponds and tanks.
31. (previously presented): A method as claimed in claim 19 for use in conveying material deposited at the base of a mine shaft to a transport vessel and hydro transporting that material to the surface.
32. (previously presented): A method as claimed in claim 19 for use in conveying a material directly into the suction line of a slurry pump at concentrations and/or pressures matched to the pump's characteristics in order to maximize its efficiency.
33. (new): Apparatus as claimed in claim 1 where the fluidising apparatus comprises a flow chamber having a fluid inlet and a fluid outlet, the flow chamber being configured to establish a swirling or coanda flow in a fluid passing out of the fluid outlet, and where the apparatus further comprises a transport outlet for transporting fluidised material away from the flow chamber.